

WHAT IS CLAIMED IS:

1           1.     An apparatus for agitating fluids in a container, comprising:  
2                     a motor for providing a first rotational driving force;  
3                     a drive cam coupled to said motor for receiving said first rotational driving  
4 force and converting said first rotational driving force into a second driving force having a  
5 reciprocal component;  
6                     a container holder for holding a fluid container, the contents of which are to be  
7 agitated;  
8                     a drive shaft coupled to said drive cam and to said container holder for  
9 receiving said second driving force and communicating it to said fluid container to agitate the  
10 contents thereof.

1           2.     The apparatus of claim 1 including a drive reducer for coupling said motor to  
2 said drive cam.

1           3.     The apparatus of claim 1 wherein said drive cam has an offset lobe, and said  
2 drive cam is coupled to said drive shaft by said offset lobe.

1           4.     The apparatus of claim 2 including a cam shaft, and wherein said drive cam is  
2 coupled to said motor by said drive reducer and said cam shaft.

1           5.     The apparatus of claim 1 wherein said container holder is rigidly coupled to  
2 said drive shaft.

1           6.     The apparatus of claim 1 wherein said second driving force is operative to  
2 produce a vortex-like agitation of a fluid contained in said fluid container.

1           7.     The apparatus of claim 1 wherein said drive cam is operative to convert said  
2 first rotational driving force into a second driving force having reciprocal and rotational  
3 components.

1           8.     The apparatus of claim 7 wherein said second driving force is operative to  
2 produce a vortex-like agitation of a fluid contained in said fluid container.

1           9.     A method for agitating fluids in a container, comprising:  
2                     providing a first rotational driving force;

3                    converting said first rotational driving force into a second driving force having  
4 a reciprocal component; and  
5                    applying said second driving force to a fluid container to agitate the contents  
6 of said fluid container.

1            10.    The method of claim 9 wherein said second driving force has reciprocal and  
2 rotational components.

1            11.    The method of claim 9 wherein the second driving force agitates the contents  
2 of said fluid container in a vortex-like manner.

1            12.    The method of claim 10 wherein the second driving force agitates the contents  
2 of said fluid container in a vortex-like manner.

1            13.    An apparatus for agitating fluids in a container, comprising:  
2                    first means for providing a first rotational driving force;  
3                    second means coupled to said first means for receiving said first rotational  
4 driving force and converting said first rotational driving force into a second driving force  
5 having a reciprocal component;  
6                    third means for holding a fluid container, the contents of which are to be  
7 agitated; and  
8                    fourth means coupled to said second means and to said third means for  
9 receiving said second driving force and communicating it to said fluid container to agitate the  
10 contents thereof.

1            14.    The apparatus of claim 13 wherein said second means includes a drive cam.

1            15.    The apparatus of claim 14 wherein said drive cam has an offset lobe, and  
2 wherein said fourth means is coupled to said second means by said offset lobe.

1            16.    The apparatus of claim 14 including a drive reducer and a cam shaft, and  
2 wherein said drive cam is coupled to said first means by said drive reducer and said cam  
3 shaft.

1            17.    The apparatus of claim 13 wherein said third means includes a container  
2 holder, said fourth means includes a drive shaft, and wherein said container holder is rigidly  
3 coupled to said drive shaft.

1           18.     The apparatus of claim 13 wherein said second driving force is operative to  
2 produce a vortex-like agitation of a fluid contained in said fluid container.

1           19.     The apparatus of claim 13 wherein said second means is operative to convert  
2 said first rotational driving force into a second driving force having reciprocal and rotational  
3 components.

1           20.     The apparatus of claim 19 wherein said second driving force is operative to  
2 produce a vortex-like agitation of a fluid contained in said fluid container